

## Topic 1: BEEF Priority Issues





## **Topic 1: BEEF Priority Issues**



### **Priority: Mycobacterium diseases (TB and Johnes)**

**Duration: Long Term**

**Rank: 2**

**Rationale:** Disease related production loss, market barriers

#### **Research Priorities:**

Diagnostics

Vaccines

Affected herd management / national control program

Wildlife / Livestock Interface

#### **Alignment of initiative with USDA Priorities:**

**1 (ending world hunger), 3 (food safety)**



## Topic 1: BEEF Priority Issues



### **Recommended strategic approaches and partnerships for addressing specific priorities:\***

Public:

Private:

Public/ Private: 1, 2, 3, 4

International: 1, 2, 4

Other: USAHA / AAVLD 1,2,3, 4



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### **Priority: Bovine Respiratory Disease Complex including BVD**

**Duration:** Long Term

**Rank:** 1

**Rationale:** Most significant cause of beef production loss.  
Reproductive losses secondary significance.

#### **Research Priorities:**

Host-pathogen interaction/synergy of agent with other factors

Altered host response

Novel preventatives and therapeutics

Surveillance for pathogens & host factors for early intervention

#### **Alignment of initiative with USDA Priorities:**

**1, 3, 5**



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### **Recommended strategic approaches and partnerships for addressing specific priorities:\***

Public: (all)USDA (ARS/NIFA); DHS; NIH; NSF; DOD; State universities

Private: (all)Philanthropic foundations (Gates, Noble); Animal industry

Public/ Private: (all)Producer organizations, state cattle associations

International: (all)OIE, QUADS countries, USAID (BARD)

Other:



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### **Priority: Vector-borne Diseases**

**Duration: Long Term**

**Rank: 3**

**Rationale:** Economic consequence due to animal loss, market disruption and loss of consumer confidence,

#### **Research Priorities:**

Virus / Vector Ecology and Host Relationship

Integrated approach to prevent importation of disease

DIVA vaccine and companion diagnostics

Improved surveillance and modeling

#### **Alignment of initiative with USDA Priorities:**

**1 and 5**



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### **Recommended strategic approaches and partnerships for addressing specific priorities:\***

Public:

Private:

Public/ Private: 1, 2, 3, 4

International: 1, 2, 3, 4

Other:



## **Topic 1: BEEF Priority Issues**



### **Priority: Infectious Reproductive Disease**

**Duration: Long Term**

**Rank: 4**

**Rationale:** A huge economic impact on cattle production despite limited success with diagnostic assays and preventives.

#### **Research Priorities:**

Impact of immune status on protecting reproductive function

Altered interaction of immune function and endocrine modulators

Novel diagnostics, preventatives and therapeutics

Efficacy of current tools: diagnostics and vaccines

#### **Alignment of initiative with USDA Priorities:**

**1, 3, 5**





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### **Recommended strategic approaches and partnerships for addressing specific priorities:\***

Public: 1, 2, 3, 4

Private: 3, 4

Public/ Private: 1, 2, 3, 4

International: 1, 2, 3, 4

Other:



## **Topic 1: BEEF Priority Issues**



### **Priority: Animal Well Being**

**Duration: Long Term**

**Rank: 6**

**Rationale:** Anticipation of impact of ballot initiatives and consumer preference trends

#### **Research Priorities:**

PAIN - measurement & control

STRESS - relationship to disease and productivity

HEALTH - maintenance/surveillance

ECONOMICS - cost/benefit of mitigation

#### **Alignment of initiative with USDA Priorities:**

**1, 5, 2**



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### **Recommended strategic approaches and partnerships for addressing specific priorities:\***

Public: 1, 3

Private: 4

Public/ Private: 2

International:

Other: Consumer and activist organizations



## Topic 1: BEEF Priority Issues



### **Priority: Minimize Impact of Emerging Infectious Diseases**

**Duration: Long Term**

**Rank: 5**

**Rationale:** Ensure food security, continuity of business, and public health

#### **Research Priorities:**

Biosecurity

Evidence for accurate disease transmission assessments incl. comm

Bio-economic decision tools for outbreak response

Define and mitigate risks at livestock/wildlife interfaces

#### **Alignment of initiative with USDA Priorities:**

**1, 3, 5**



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### **Recommended strategic approaches and partnerships for addressing specific priorities:\***

Public: USDA, DHS, DOD, DOI, DOT, State universities, local/state govt.

Private: pharm. industry, diagnostic labs, philanthropic funds, commodity groups

Public/ Private: above

International: OIE, GFRA, QUADS, FAO

Other: Media